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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/456,516      | 12/08/1999  | KLAUS MULLER         | 732/000012          | 6567             |

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EXAMINER

TSOY, ELENA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1762

13

DATE MAILED: 09/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |               |  |
|------------------------------|-----------------|---------------|--|
| <b>Office Action Summary</b> | Application N . | Applicant(s)  |  |
|                              | 09/456,516      | MULLER ET AL. |  |
|                              | Examiner        | Art Unit      |  |
|                              | Elena Tsoy      | 1762          |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 July 2002 and 06 August 2002.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-13 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10 and 13 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 13, 2002 has been entered.

***Response to Amendment***

2. Amendment filed on July 1, 2002 and August 6, 2002 have been entered. Claim 7 has been cancelled. New claim 13 has been added. Claims 1-6, 8-13 are pending in the application. Claims 11, 12 are withdrawn from consideration as directed to a non-elected invention.

***Claim Objections***

3. Claim 2 is objected to because of the following informalities: a phrase "from said thermoplastic polymer reinforced thermoplastic polymer" should be changed to -- from said reinforced thermoplastic polymer --.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1, lines 12-15, a phrase "into which the films for the decorative layer and the heat cured layer and an optional ..." renders the claim indefinite because the phrase not finished.

Art Unit: 1762

For examining purposes the phrase was interpreted according to specification (See page 5, line 1) as -- into which the films for the decorative layer and the heat cured layer and an optional ... have previously been placed --.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 1, 3, 4, 8-10** are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (US 5,139,854).

Johnson discloses a layered composite with a decorative surface and consisting essentially of a backing layer 4 of a reinforced (See column 1, lines 18-19; column 2, lines 62-65) thermoformable (thermoplastic) polymer, which is not polypropylene (See Fig. 2; column 9, lines 64-69) (e.g. injection molded urethane, See column 2, lines 63-64), a decorative layer 2 arranged thereupon (See Fig.2; column 6, lines 6-22; column 7, lines 59-60) and a heat-cured layer 1 applied to the decorative layer 2 (See column 7, lines 13-15) wherein the total thickness of the layered composite is from 140 to 1450 microns (0.14-1.45 mm) and whose backing layer 4 makes up at least 80 % of the thickness (See column 6, lines 51-64). A layer 3 is *optional* (See Fig. 2; column 6, lines 22-29). The layered composite is very durable and weatherable and is useful for exterior finish of automobiles (See column 2, lines 1-2).

Art Unit: 1762

Although Johnson does not expressly show that the layered composite may be used for flooring coverings and wall panels, it is the Examiner's position that a layered composite of Johnson meets the claim since it is capable of performing the intended use, as evidenced by Ellison et al (See US 5,342,666, column 3, lines 34-35).

It is held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In *re Albertson* 141 USPQ 730 (CCPA 1964); In *re Heck* 114 USPQ 161 (CCPA 1957). Likewise different intended uses for two otherwise similar products - is not a basis for patentable distinction. In *re Tuominen* 213 USPQ 89 (CCPA 1982).

Although Johnson does not expressly show particulars of injection-molding process for making a backing layer and a layered composite, it is the Examiner's position that a layered composite of Johnson is identical to claimed composite, since patentability of a chemical product is independent of how it is made. Ex parte Jungfer 18 USPQ 2d 1796, 1800 (BPAI 1991); Bristol-Myers Co. v. U. S. International Trade Commission 15 USPQ 2d 1258 (Fed. Cir. 1989); Ex parte Allen 2 USPQ 2d 1425, 1427 (BPAI 1987); In *re Thorpe* 227 USPQ 964 (Fed. Cir. 1985); In *re Dike* 157 USPQ 581 (CCPA 1968); In *re Stephens* 145 USPQ 656 (CCPA 1965); In *re Hoeksema* 141 USPQ 733, 736 (CCPA 1964); In *re Smith* 74 USPQ 207 (CCPA 1947).

Art Unit: 1762

Burden shifts on Applicants to show differences in product comparisons. Ex parte Gray  
10 USPQ 2d 1922, 1925 (BPAI 1989).

**As to claim 3**, an optional intermediate layer 3 can be inserted as bonding material  
between backing layer 4 and the decorative layer 2. See Fig.2; column 6, lines 22-29.

**As to claim 4**, a thermoplastic polymer is polystyrene. See Fig. 2; column 9, lines 64-69.

**As to claim 8**, the decorative layer 2 is composed of a polymeric material, which has an  
embossment or coloration or combination of both. See Fig.2; column 6, lines 11-14.

**As to claim 9**, the heat-cured layer 1 arranged on the decorative layer 2 is composed of a  
thermosetting polymeric material, crosslinked by exposure to pressure or heat during the  
production of the layered composite. See column 7, lines 13-14, 28-41.

**As to claim 10**, the layered composite with a decorative surface further comprises a 500-  
25,000 micron thick additional backing layer 5 of a rigid thermoplastic polymer (See column 6,  
lines 26-29, 44-45), so that the total thickness of the layered composite is from 640 to 26,450  
microns (0.64-26.45 mm) and whose backing layer 4, 5 makes up at least 90 % of the thickness.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all  
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in  
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are  
such that the subject matter as a whole would have been obvious at the time the invention was made to a person  
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the  
manner in which the invention was made.

9. **Claims 1, 3-5, 8, 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ellison et al (US 5,342,666) in view of Johnson (US 5,139,854).

As to claims 1, 3, Ellison et al disclose a layered composite with a decorative surface for wall panels (See column 3, lines 34-35) and consisting essentially of a molded polymer substrate 20 (backing layer) having engineering properties such as rigidity, etc., which is not polypropylene (See column 5, lines 37-50); a cast film 13 comprising a heat cured top layer on a decorative layer (See column 4, lines 15-22), and a bonding layer 14 (See column 5, lines 56-60) for facilitating the bonding of the cast film 13 to the backing layer (See column 6, lines 8-9); wherein the backing layer 20 makes up at least 80 % of the total thickness (See Fig. 5; column 6, lines 51-64). Considering the fact that the layer 13  $0.5 \times 10^{-3}$  -  $300 \times 10^{-3}$  inch thick (See column 6, lines 54-55), the bonding layer 14 is  $0.25 \times 10^{-3}$  -  $250 \times 10^{-3}$  inch thick (See column 6, lines 41-42), and the backing layer 20 is at least 4 times thicker than both layer 13 and 14, the total thickness of the layered composite would approximately be in the range of 0.07 – 56 mm. Ellison et al teach that the layered composite can be made in accordance with known laminating procedures e.g. comprising placing both layer 13 and 14 into the mold, injecting the backing layer 20 onto the bonding layer 14 and then molding resulting laminate (See column 5, lines 56-68; column 7, lines 58-64).

Ellison et al fail to teach exact claimed process parameters (Claim 1), and fail to teach that decorative cast film 13 can be bonded to the backing layer 20 without the use of the bonding layer 14 (Claim 1)

As to exact claimed process parameters, it is held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Art Unit: 1762

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum values of the relevant process parameters through routine experimentation in the absence of showing criticality.

As to the teaching that a decorative layer 13 can be bonded to the backing layer 20 without the use of the bonding layer 14, Johnson teach that a decorative layer 2 can be bonded to a backing layer 4 either with or without the use of a (bonding) layer 3 depending on material used (See column 6, lines 22-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a decorative layer of a cast film of Ellison et al from material of a bonding layer with the expectation of bonding the decorative layer to a backing layer without the use of additional bonding layer, as taught by Johnson.

**As to claim 4**, Ellison et al further teach that a thermoplastic polymer is polystyrene. See column 5, line 43.

**As to claim 5**, Ellison et al further teach that the backing layer is polyethylene terephthalate backing layer (See column 5, lines 44-45). Ellison et al fail to teach that the backing layer is polybutylene terephthalate backing layer.

It should be noted that polyethylene terephthalate in Ellison et al is homologue of the claimed one. Homologues are a class of compounds differing only by methylene linkages and possessing similar properties. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted polyethylene terephthalate in Ellison et al with homologues such as polybutylene terephthalate in view of their closely related structures and the resulting expectation of similar properties.



Art Unit: 1762

As to **claim 8**, Ellison et al further teach that the decorative layer 2 is composed of a polymeric material, which has coloration. See column 5, lines 13-22.

As to **claim 13**, Ellison et al further teach that glass fillers can be used for reinforcing a backing material (See column 5, lines 38-55).

10. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5,139,854).

Johnson, as applied above, fails to teach that decorative layer 2 and a heat-cured layer 1 are present on each side of the backing layer 4.

It is held that that mere duplication of parts has no significance unless a new and unexpected result is produced. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). See also MPEP 2144.04.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied a decorative layer and a heat-cured layer to each side of the backing layer of Johnson depending on the intended use since it would be obvious mere duplication.

11. **Claim 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5,139,854) in view of Miyakoshi (US 5,827,788).

Johnson, as applied above, further teaches that a backing layer of a decorative laminate can be made from polystyrene. See column 9, lines 64-68.

Johnson fails to teach that the backing layer is polybutylene terephthalate backing layer.

Miyakoshi teaches that polystyrene is functionally equivalent to polybutylene terephthalate for making a backing layer of a decorative laminate. See column 4, lines 41-42, 49-51.

Art Unit: 1762

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used polybutylene terephthalate for making a backing layer of a decorative laminate of Johnson since Miyakoshi teaches of the equivalence of polybutylene terephthalate and polystyrene for their use as a backing layer in the decorative laminate art and selection of any of these materials to form a backing layer of a decorative laminate would be within the level of ordinary skill in the art. To substitute polystyrene in Johnson for polybutylene terephthalate of Miyakoshi would have been an obvious functional equivalent.

12. **Claim 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5,139,854) in view of Pelzer (US 6,019,923).

Johnson, as applied above, further teaches that a backing layer can be made from polyethylene. See column 9, lines 64-65.

Johnson fails to teach that the backing layer of a decorative laminate is made from polyoxymethylene.

Pelzer teaches that polyethylene is functionally equivalent to polyacetals (polyoxymethylene) for making a backing layer of a decorative laminate. See column 5, lines 11-12, 22-27.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used polyoxymethylene for making a backing layer of a decorative laminate of Johnson since Pelzer teaches of the equivalence of polyoxymethylene and polyethylene for their use in the decorative laminate art and selection of any of these materials to form a backing layer of a decorative laminate would be within the level of ordinary skill in the art. To substitute

Art Unit: 1762

polyethylene in Johnson for polyoxymethylene of Pelzer would have been an obvious functional equivalent.

*Response to Arguments*

13. Applicant's arguments with respect to claims 1-6, 8-12 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (703) 605-1171. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Elena Tsoy  
Examiner  
Art Unit 1762

September 9, 2002



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